

Amendments to the Specification:

Please replace paragraph [0028] with the following paragraph:

[0028] FIG. 2 2A illustrates an enlarged top view of a small portion of the disk of FIG. 1 showing two adjacent track segments.

Please insert the following new paragraph [0029] following paragraph [0028]:

[0029] FIG. 2B illustrates a pattern of plurality of holes arranged along a helix.

Please replace paragraph [0033] with the following paragraph:

[0033] Referring now to FIGS. 1 ~~and 2~~, 2A, and 2B (not to scale), there is shown a preferred implementation of the storage media of the present invention, generally referred to by reference numeral 100. The storage media 100 is preferably a thin, transparent plastic disk approximately 120 millimeters in diameter, about the size of a conventional CD. Thus, storage media 100 is preferably circular in shape and has a data storage area having an inner diameter of about 25 millimeters and an outer diameter of about 115 millimeters.

Please replace paragraph [0034] with the following paragraph:

[0034] The storage media comprises a first layer 102. The first layer 102 is substantially transparent to a predetermined radiant energy used for reading the data stored on the storage media 100. Since, as will be discussed below, the preferred radiant energy source is a light source having a wavelength between 50 and 450 nanometers, the first layer is preferably fabricated from a rigid polycarbonate layer 14, which is substantially transparent to such wavelength light. The polycarbonate first layer 102 can be fabricated by any methods known in the art, such as by casting.

Please replace paragraph [0037] with the following paragraph:

[0037] The circular holes 108 preferably have a diameter in a range of about 30 to 100 nanometers (nm), more preferably of about 50 nanometers. The distance (S) between successive holes is preferably a hole diameter apart, or in a range of about 30 to 100 nanometers. Similar to the pattern of pits and lands on a conventional CD and DVD, the pattern 106 of holes 108 are preferably arranged along a helix track 110 beginning near a

center of the storage media 100 and extending spirally outward. Each successive pass of the helix track is separated from a previous pass of the helix by a track pitch (P). ~~FIG. 2~~ FIGS. 2A and 2B ~~illustrates~~ illustrate two successive passes 110, 112 of the helix track 110. FIG. 2A approximates the passes 110, 112 as being linear for clarification purposes, while FIG. 2B shows a portion of the actual helical implementation. In the case where the diameter of the holes 108 is 50 nanometers, the track pitch is preferably 100 nanometers or twice the diameter of the holes 108. The pattern 106 of holes 108 is formed in the second layer 104 by methods known in the art such as by conventional x-ray lithography as is known in the fabrication of integrated circuits. As discussed above, data is stored on the storage media 100 as the presence or absence of a hole 108 in the overall pattern 106.

Please replace paragraph [0041] with the following paragraph:

[0041] FIG. 3 illustrates the apparatus 200 and a side view of the storage media 100 of FIG. 1 oriented therein. The apparatus 200 includes a radiant energy source 202 having an output of radiant energy directed towards the plurality of data holes 108. Radiant energy source 202 is preferably a light source such as a blue or UV laser diode, such as those manufactured by Cree, Inc. of Durham, N.C., USA. Light source ~~204~~ 202 preferably operates at 3 mW and produces an intense blue light at about 410 nm. However, it will be appreciated that the light source is preferably in the deep UV to blue range of about 50 nm to 450 nm in wavelength. It should also be appreciated that while radiant energy having wavelengths in this range are preferred, radiant energy below (e.g., x-rays) and above this band may also be used.

Please replace paragraph [0044] with the following paragraph:

[0044] When used with a radiant energy source ~~204~~ 202 in the form of a light source ~~204~~ 202, the discrete photodetectors 204 of the photodetector array are sensitive to light at the wavelength of the light source ~~204~~ 202. In a preferred implementation, photodetectors 204 take the form of model no. CD-260-1-00-D silicon carbide ultraviolet photodetector chips manufactured by Cree, Inc. of Durham, N.C., USA. These photodetectors have extraordinary responsibility to light in a band including the wavelength of the light source ~~204~~ 202 and

have exceptionally low dark current. Further details for the manner in which photodetectors 204 are preferably arranged is shown in the top view of FIG. 4.

Please replace paragraph [0045] with the following paragraph:

[0045] Likewise, photodetectors used in accordance with the invention are preferably solid-state devices such as the mentioned Cree, Inc. silicon carbide photodetectors, where the responsivity curve of the photodetector matches the wavelength of the light output by the light source ~~204~~ 202. Solid state photodetectors may be formed to match the light source from various wide bandgap semiconductor materials, including silicon carbide and the others mentioned above.